

KHERSONSKIY, S.

Organizational excesses in machine-tractor stations. Fin.SSSR 18  
no.7:48-50 J1 '57. (MIRA 10:7)

1. Starshiy revizor po Mashinno-traktornym stantsiyam Moskovskogo  
oblfinotdela.

(Machine-tractor stations)

KHERSONSKIY, S.

Potentials which must be utilized. Fin. SSSR 20 no. 7:60-6:  
Jl '59. (MIRA 12:11)

1. Starshiy revizor Moskovskogo oblastnogo finansovogo otdela.  
(Moscow Province--Repair and supply stations--Finance)

KHERSONSKIY, S.; ONDRIN, A.; P'YAVCHENKO, V.; KARPENKO, V.

Readers' suggestions. Fin. SSSR 21 no.3:58-60 Mr '60.

(MIRA 13:3)

1. Starshiy revisor Moskovskogo oblastnogo finansovogo otdela (for Khersonskiy). 2. Zamestitel' upravlyayushchego Udmurtskoy kontoroy Stroybanka (for Ondrin).  
(Finance)

KHERSONSKIY, S.A.

"Journey through the northeastern part of Siberia, the Arctic Ocean,  
and the Pacific Ocean." G.A.Sarychev. Reviewed by S.A.Khersonskii.

Vop.geog. 31:268-270 '53.

(MIRA 7:6)

(Sarychev, Gavriil Andreevich, 1763-1831) (Far East--Description  
and travel)

**KHERSONSKIY, S. A.**  
USSR/Geophysics - Cartography of Irkutsk

FD-779

Card 1/1 : Pub 129-16/24

Author : Khersonskiy, S. A.

Title : Compilation of regional maps of forests and arable lands

Periodical : Vest. Mosk, un., Ser. fizikomat. i yest. nauk, Vol 9, No 2, 115-124, Mar 1954

Abstract : In connection with the study of prospects for developing the economy of the west Baykal area in the Irkutsk Oblast, the Scientific-Research Institute of Geography, Moscow University, organized a complex expedition, which has been investigating this territory since 1947. Results of the study of the forests and arable lands are given.

Institution : Chair of Geodesy and Cartography

Submitted : April 20, 1953

KHERSONSKIY, S.A.

Cartographic work in the evaluation of soils. Vop.geog. no. 13:  
115-122 '58. (MIRA 12:5)  
(Agriculture--Maps)

KHERSONSKIY, Semen Grigor'yevich; PLEKHANOV, I.P., red.; BODANOVA,  
A.P., tekhn. red.

[Adjustment of the KRAZ motortrucks] Regulirovka gruzovykh  
avtomobilei KRAZ. Moskva, Avtotransizdat, 1962. 66 p.

(MIRA 15:7)

(Motortrucks--Maintenance and repair)

KHERSONSKIY, S.S.

TIMOFEEV, K.N.; KHERSONSKIY, S.S.

More dynamism in industrial processes and an increase in production quality are the most important tasks of the glass industry. Stok.1  
ker.12 no.7:16-19 J1 '55. (MLRA 8:10)  
(Glass industry)



VEYNBERG, Kal'man Lipmanovich; GURFINKEL', Isaak Yevgen'yevich[deceased];  
KOTLYAR, Abram Yevseyevich; NOL'KEN, Maksimilian Petrovich;  
ORLOV, Anatoliy Nikolayevich; KHERSONSKIY, Sergey Semenovich;  
SHKOL'NIKOV, Yakov Abramovich; BROMLEY, P.V., retsenzent;  
ZALIZNYAK, A.A., retsenzent; KISELEV, N.V., retsenzent; KLEGO,  
D.I., retsenzent; SHVAGIREV, Ya.D., retsenzent; DUKHOVNIY, F.N.,  
red.; TRISHINA, L.A., tekhn. red.

[Equipment and mechanization of glass factories]Oborudovanie i  
mekhanizatsiia stekol'nykh zavodov. [by] K.L.Veinberg i dr. Mo-  
skva, Rostekhzdat, 1962. 451 p. diagrs. (MIRA 15:10)  
(Glass—Equipment and supplies)

KHERSONSKIY, V. I.

Phonograph records. N. I. Tregubov, L. V. Martynova, and V. D. Kherzonskii. U.S.S.R. 69,939, Dec. 31, 1947. As bonding agent for phonograph records is used a copolymer of vinyl chloride and vinylidene chloride. This bonding agent reduces the initial noise of records, improves their wear resistance and stability, increases the mech. strength and elasticity, and facilitates the production of records.

M. Hosen

KHERSONSKIY V. I.

PA 17T70

USSR/Mines and Mining  
Mineral Industries

Aug 1947

"Increasing the Height of Levels," V. I.  
Khersonskiy, 1 p

"Gornyy Zhurnai" No 8

Most levels have heights of 50 meters in the  
Krivoy Rog Basin. Investigation has shown that  
it is possible to increase this to 90 to 100  
meters. This would increase the ton mining of  
ore by 20 to 25 percent.

17T70

KHERTSBERG, SH. Z.

KHERTSBERG, Sh. Z. -- "Anomalies of the Arrangement of the Front Teeth."  
Latvian State U, 1947. In Latvian  
(Dissertation for the Degree of Candidate of Medical Sciences)

SO: Izvestiya Ak. Nauk Latviyskoy SSR, No. 9, Sept., 1955

KHERTSBERG, Sh.E., kandidat meditsinskikh nauk (Riga)

Certain factors determining types of anomalous position of incisors.  
Stomatologiya no.4:46-50 J1-Ag '54. (MIRA '19)

(TETH,  
incisors, anomalous position, causes)

SHERTSOQ, S.

Toxicological and hygienic aspects of vinyl-n-butyl ether.  
Trudy LSGMI 45:50-55 '58 (MIRA 11:11)

1. Kafedra gigiyeny truda s klinikoy profzabolevaniy Leningradskogo  
sanitarno-gigiyenicheskogo meditsinskogo instituta (zav. kafedroy  
-prof. Ye. TS. Andreyeva-Galanina).  
(ETHER)

KHERUNTSEVA, KH. A.

USSR /Chemical Technology. Chemical Products  
and Their Application

I-19

Dyeing and chemical treatment of textiles

Abs Jour: Referat Zhur - Khimiya, No 9, 1957, 32181

Author : Ivanov N. Ye., Kheruntseva Kh. A., Smirnov N.A.

Title : Boiling of Toweling Fabric with Hydrogen  
Peroxide

Orig Pub: Tekstil'naya prom-st', 1956, No 4, 50-51

Abstract: Bleaching of cotton fabrics with  $H_2O_2$  has considerable advantages over the alkaline-hypochlorite method of bleaching. In this procedure the processes of desizing, boiling and bleaching are carried out in one bath. Compositions and

Card 1/3 Nachal'nik ot del'nogo tsekha Shuyaskoy ob'yedinennoy fabriki (for Ivanov)  
Zaveduyushchiy khimicheskoy laboratoriyey bel'nootdelochnoy fabriki  
Krasnovolzhskogo kombinata (for Kheruntseva)

USSR /Chemical Technology. Chemical Products  
and Their Application

I-19

Dyeing and chemical treatment of textiles

Abs Jour: Referat Zhur - Khimiya, No 9, 1957, 32181

technology for the bleaching of toweling have been worked out, which involve the use of  $H_2O_2$  in boiling kettles of the closed type, at  $85-90^\circ$ . Solutions containing high concentrations of  $H_2O_2$  (up to 6 g/litter) are stabilized with sodium silicate. Duration of boiling is 3 hours. Total turnover time of a kettle for one operation is of about 10 hours. As a result good whiteness, capillarity and normal strength of the fabric are attained. On the bleached fabric were detected individual threads stained different colors by markings made at the spinnery, which was not ob-

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USSR /Chemical Technology. Chemical Products  
and Their Application

I-19

Dyeing and chemical treatment of textiles

Abs Jour: Referat Zhur - Khimiya, No 9, 1957, 32181

served on using the alkaline-hypochlorite method of bleaching. It was ascertained that direct and basic dyestuffs are not decomposed under conditions of peroxide bleaching while the acid dyes are completely discharged. Therefore it is recommended to use only acid dyes for marking coarse linen.

Card 3/3

KHERUVIMOV, Anatoliy Dmitriyevich; CHECHKOV, L.V., red.isd-va;  
IL'INSKAYA, G.M., tekhn.red.

[Safety techniques in mine building] Tekhnika bezopasnosti  
pri stroitel'stve shakht. Moskva, Gos.nauchno-tekhn.isd-vo  
lit-ry po gornomu delu, 1960. 195 p. (MIRA 13:11)  
(Mining engineering--Safety measures)

VISHNYAKOV, S.I., dotsent; KHERUVIM, V. P.V.; SOROKINA, A.A., starshi nauchnyy  
sotrudnik

Preventing toxic dyspepsia and treating calves affected with it. Veterinariia no.12:34-36 D '63. (MIRA 17:2)

1. Kurskaya oblastnaya nauchno-proizvodstvennaya veterinarnaya laboratoriya. 2. Kurskiy sel'skokhozyaystvennyy institut (for Vishnyakov).

BOLOTOV, L.; GREBENNIKOV, Yu.; FOMKIN, B.; KHERUVIMOV, V.

Readers' letters. NT0 5 no.5:43 My '63.

(MIRA 16:7)

1. Zamestitel' predsedat'lya Khar'kovskogo oblastnogo pravleniya Nauchno-tekhnicheskogo obshchestva sel'skogo khozyaystva (for Bolotov). 2. Predsedatel' sektsiy zhivotnovodstva Vitebskogo oblastnogo pravleniya Nauchno-tekhnicheskogo obshchestva sel'skogo khozyaystva (for Grebennikov). 3. Chlen soveta nauchno-tekhnicheskikh obshchestv Gosudarstvennogo vsesoyuznogo instituta po proyektirovaniyu i nauchno-issledovatel'skim rabotam tsementnoy promyshlennosti (for Fomkin). 4. Uchenyy sekretar' soveta nauchno-tekhnicheskogo obshchestva Kurskoy oblastnoy veterinarnoy laboratorii (for Kheruvimov).  
(Technological innovations)

KHERUVIMOV, V.; VISHNYAKOV, S., kand. veterin. nauk

Method for treating dyspepsia of calves. NTO 6 no.3:21  
Mr '64. (MIRA 17:6)

1. Predsedatel' soveta Nauchno-tekhnicheskogo obshchestva Kurskoy veterinarnoy laboratorii, zaveduyushchiy otdelom biokhimii Kurskoy veterinarnoy laboratorii (for Kheruvimov).
2. Zaveduyushchiy kafedroy veterinarii i biokhimii Kurskogo sel'skokhozyaystvennogo instituta (for Vishnyakov).

DUL'NEV, V.; POLETSKIY, V.A.; ZINCHENKO, A.; PILIPCHUK, R.; SHINKAREV;  
IGNATOVICH, G.I.; ZHANUZAKOV, N.; KHERUVIMOV, V.P.; PLUZHNIKOVA, V.

Brief news. Veterinariia 41 no.7:122-126 J1 '64.

(MIRA 18:11)

ROZHDAYEV, V.I.; SILAYEV, A.M.; IVKIN, N.; PRIYMA, O.; TITOK, V.;  
ROMANOVSKIY, A.B.; KHERUVIMOV, V.P.

Brief news. Veterinariia 42 no.11:121-126 N '65. (MIRA 19:1)

1. Sekretar' obshchestvennogo redaktsionnogo soveta zhurnala  
"Veterinariya" (for Rozhdayev).

VASIL'KOV, G., kand.veterinarnykh nauk; POLYKOVSKIY, M.D.; KUDRYAVTSEV, A.A.;  
MAMADZHANOV, I.; MOLDAKAYEV, Zh.; LAVRENT'YEV, M.; KHERUVIMOV, I.P.;  
KURANOV, Yu.

Throughout the Soviet Union. Veterinariia 37 no.4:91-96 Ap'60  
(MIRA 16:6)

1. Uchenyy sekretar' veterinarnoy seksii Vsesoyuznoy akademii  
sel'skokhozyaystvennykh nauk imeni Lenina (for Vasil'kov).  
(VETERINARY RESEARCH) (VETERINARY MEDICINE)  
(VETERINARY HYGIENE)

Khrenov



KAARDE, I.A., prof.; KHERUVIMOV, V.P.; SEVRUK, O.; LUZYANIN, D.;  
LESHNIK, E.; POTAFOV, V.M.; SIKORSKIY, A.N.

Brief news. Veterinariia 41 no.6:122-125 Je '64. (MIRA 18:6)

KHERUVIMOVA, M., inzh.

Cleaning the neutral zinc electrolyte from cobalt with alpha-nitroso-beta-naphthol in the solution containing a higher amount of iron. Min delo 18 no. 2:26-29 F '63.

KHERUVIMOVA, V.A.

The system ammonia-glutamine-glutamic acid of the brain in ontogenesis. Dokl. AN SSSR 136 no.4:968-970 F '61. (MIRA 14:1)

1. Rostovskiy-na-Donu gosudarstvennyy universitet. Predstavleno akademikom A.I. Oparinym.  
(BRAIN)--- (AMMONIA)

KHERUVIMOVA, V.A.

Ammonia, glutamic acid and glutamine in the brain in ontogeny under the influence on the organism of oxygen under pressure. Ukr. biokhim. zhur. 34 no.2:230-236 '62

(MIRA 16:11)

1. Department of Biochemistry of Rostov-na-Donu State University.

\*

KHERUVIMOVA, V.A. (USSR)

"Dynamics of the Ammoni-Glutamic Acid-Glutamine System  
in the Brain Tissue of very Young Rabbits and Guinea-pigs  
Exposed to Oxygen Under Pressure."

Report presented at the 5th Int'l. Biochemistry Congress,  
Moscow, 10-16 Aug 1961.

SOV/77-28-6-4/63  
AUTHORS: Petrov, A. A., Bal'yan, Kh. V., ~~Kheruzo, Yu. I.~~,  
Shvarts, Ye. Yu., Cherenkova, L. L.

TITLE: Investigations in the Field of Combined Systems (Issledo-  
vaniya v oblasti sopryazhennykh sistem) LXXXIX. The Influence  
of Various Factors on the Yield of Geranyl Chloride in the  
Reaction of Isoprene With Its Hydrochlorides (LXXXIX. Vliyaniye  
razlichnykh faktorov na vykhod geranilkhlorida v reaktsii  
isoprana s yego gidrokhlordami)

PERIODICAL: Zhurnal obshchey khimii, 1958, Vol. 28, Nr 6, pp. 1435 - 1444  
(USSR)

ABSTRACT: In many investigations of synthesizing geranyl chloride in  
a good yield special attention was paid to the binding of  
the 1 chloro-3-methylbutene-2 to isoprene. Its production  
offered good prospects to the perfume- and vitamin industry.  
This was the reason for many laboratories, such as the  
author's, to investigate the reaction of the diene hydrocarbons  
with their hydrochlorides in order to learn on which condi-  
tions the best yields of geranyl chloride and its derivatives

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Investigations in the Field of Combined Systems. LXXXIX. The Influence of Various Factors on the Yield of Geranyl Chloride in the Reaction of Isoprene With Its Hydrochlorides

SOV/9-28-6-4/63

could be realized. The final product of the binding of isoprene hydrochlorides to isoprene is a complex mixture of halogen derivatives of the formula  $C_5H_9-(C_5H_8)_n-Cl$ . In this paper only the fraction of terpene chlorides of the composition  $C_{10}H_{17}Cl(n=1)$  was investigated. The telomerization reaction of isoprene with its hydrochlorides was investigated in the presence of various catalysts of which tin chloride and zinc chloride proved to be the best. It was found that the character of the telomerization depends on the nature of the catalyst: tin chloride promotes the formation of the higher telomers besides geranyl chloride, tin chloride that of terpenyl chloride. It was shown that in using tin chloride and zinc chloride catalysts the yield of geranyl chloride depends first of all on the depth of the conversion, and that with the same depth of conversion secured it does not depend on the nature of the catalyst, the nature of the halogen derivatives, the temperature, the ratio of reagents, and only little on the nature of the solvent. The composition of the mixture of terpene chlorides forming in the telo-

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SOV/79-29-2-20/71

AUTHORS: Petrov, A. A., Bal'yan, Kh. V., Kheruze, Yu. I., Shvarts, Ye. Yu., Yakovleva, T. V.

TITLE: On the Question of the Structure of Citral, Obtained From the Synthetic Geranyl Chloride (K voprosu o stroenii tsitralya, poluchennogo iz sinteticheskogo geranilkhlorida)

PERIODICAL: Zhurnal obshchey khimii, 1959, Vol 29, Nr 2, pp 445-450 (USSR)

ABSTRACT: In connection with the systematic investigations begun in their laboratories in the field of telomerization of diene hydrocarbons with halogen derivatives (Refs 1-3), K. V. Leets, A. K. Shumeyko and collaborators achieved the synthesis of citral from isoprene (Ref 4). The question arose obviously, whether this citral differs from natural samples and especially from citral, commercially obtained from coriander oil. According to data contained in publications (Refs 5-7) natural citral chiefly consists of citral «a», geranial, whereas in synthetic citral neral (citral «b» is predominant). By the aid of the infrared spectra of citral isomers separated from one another by some research workers (Refs 6-8), the structure of citral from isoprene is conveniently determinable, all the more as it became

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SOV/79-29-2-20/71

On the Question of the Structure of Citral, Obtained From the Synthetic Geranyl Chloride

possible also to solve the question of the content of the  $\alpha$  and  $\beta$ -form simultaneously (Ref 9). Thus, investigations were extended to the infrared and ultraviolet spectra, as well as the Raman spectrum of synthetic citral, obtained from the telomers of isoprene with its hydrochlorides according to Somme. The citral samples obtained from both isomeric hydrochlorides of isoprene, were found to be practically identical. Synthetic citral differs somewhat from natural and technical citral, differences being caused by the different content of geometrical isomers (geranial and neral) and by the presence of an admixture. Synthetic citral was found to have but a small amount of  $\alpha$ -form. There are 2 figures, 4 tables, and 14 references, 8 of which are Soviet.

ASSOCIATION: Leningradskiy tekhnologicheskij institut imeni Lensovet  
Leningrad Technological Institute imeni Lensovet)

SUBMITTED: December 31, 1957  
Card 2/2

5(3)

AUTHORS:

Petrov, A. A., Bal'yan, Kh. V., Kheruze, Yu. I., Shvarts, Ye. Yu.,  
Cherenkova, L. L.

SOV/79-26-6-21/72

TITLE:

Investigations in the Field of the Conjugated Systems (Issledovaniya v oblasti sopryazhennykh sistem). XCIX. On the Problem of the Synthesis of Geranyl Chloride by Telomerization of Isoprene With Its 1,4-Hydrochloride (XCIX. K voprosu o sinteze geranilkhlorida telomerizatsiyey izoprena i yego 1,4-gidrokhlordom)

PERIODICAL:

Zhurnal obshchey khimii, 1959, Vol 29, Nr 6,  
pp 1876 - 1878 (USSR)

ABSTRACT:

In a report recently published (Ref 1) the authors described the synthesis of geranyl chloride by means of telomerization of isoprene with its hydrochloride in the presence of stannic or stannous chloride as catalysts. In the paper under review the results of further investigations on this reaction were presented, in which, however, different catalysts were used. The effect of titanium tetrachloride on the mixture of isoprene and its 1,4-hydrochloride (1-chloro-3-methyl butene-2), on the mixtures of  $TiCl_4$  and  $SnCl_4$ ,  $SnCl_4$  and excess  $HCl$ ,  $SnCl_4$  and

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Investigations in the Field of the Conjugated Systems. SOV/79-29.6-21/72  
XCIX. On the Problem of the Synthesis of Geranyl Chloride by Telomerization  
of Isoprene With Its 1,4-Hydrochloride

$\text{CuCl}_2$ ,  $\text{FeCl}_3$  and potassium bifluoride,  $\text{Zn}(\text{BF}_4)_2$  and  $\text{BiBr}_3$  was investigated. The investigations with these catalysts led to the conclusion that on telomerization of isoprene with its hydrochloride two groups of catalysts have to be distinguished: The catalysts of the first group ( $\text{SnCl}_4$ ,  $\text{TiCl}_4$ ,  $\text{FeCl}_3$ ) yield the highest telomers. The catalysts of the second group ( $\text{ZnCl}_2$ ,  $\text{Zn}(\text{BF}_4)_2$ ,  $\text{BiBr}_3$ ) only lead to the stage of the formation of terpene chlorides where the reaction stops. The cause of this stop is, as has been already found previously, the partial cyclization of the geranyl chloride into the terpenyl chloride. Therefore the content of geranyl chloride in the terpene fraction of the telomer is far less than when using catalysts of the first group. The hydrogen chloride retards the telomerization but does not affect its character. There are 1 table and 1 Soviet reference.

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Investigations in the Field of the Conjugated Systems. SOV/79-29-6-21/72  
XCIX. On the Problem of the Synthesis of Geranyl Chloride by Telomerization  
of Isoprene With Its 1,4-Hydrochloride

ASSOCIATION: Leningradskiy tekhnologicheskii institut imeni Lenskvet (Leningrad Technological Institute imeni Lenskvet)

SUBMITTED: May 31, 1958

Card 3/3

3 (5)

AUTHORS:

Petrov, A. A., Bal'yan, Kh. V.,  
Kheruze, Yu. I., Yakovleva, T. V.

SOV/79-29-6-72/72

TITLE:

The Article is Open for Discussion (V poryadke discussii).  
On the Question of the Character of Chloroarylation of Vinyl  
Acetylene (K voprosu o poryadke khlorarilirovaniya vinil-  
atssetilena)

PERIODICAL:

Zhurnal obshchey khimii, 1959, Vol 29, Nr 6, pp 2101 - 2103  
(USSR)

ABSTRACT:

The data of the American patent 2657244 according to which  
vinyl acetylene is chloroarylized with diazo salts only on the  
ethylene bond (I) have been confirmed in the recently publish-  
ed report of A. V. Dombrovskiy (Ref 1). The exclusively claim-  
ed 1,2-affiliation of chlorine and aryl in this radical proc-  
ess seemed to the authors not quite probable. The frequently  
repeated analysis under conditions proposed by Dombrovskiy  
showed, that the categoric conclusion of this author with re-  
gard to the character of chloroarylation of vinyl acetylene  
does not correspond to reality. In every case the reaction  
takes place under formation of somewhat varying, but always  
considerable quantities of 1,4-products (20-40% of all adducts).

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The Article is Open for Discussion. On the Question SOV/79-29-6-72/72  
of the Character of Chloroarylation of Vinyl Acetylene

The authors gained this conviction on the basis of the analyses of infrared spectra of the adducts. In addition to the frequencies of the acetylene group the spectra contained in the final phase an intensive frequency, which could only be attributed to the allene group of the compound (II). The chloroarylation products of the vinyl acetylene apparently contain in very small quantities also a third isomer, the 1,3-diene isomer (III), because the spectrum of the product in the range  $6100\text{ cm}^{-1}$  shows a small maximum, which is characteristic of the group  $\text{CH}_2=$ .

According to Dombrovskiy's report phenyl-vinyl acetylene to which 20% allene chloride is admixed, is obtained at the dehydro-halogenation of chloroarylation products of the vinyl acetylene. Accordingly this allene chloride contains a much less mobile chloride atom, than the acetylene chloride (I). To produce pure phenyl-vinyl acetylene, the method of S. N. Reformatskiy (Ref 5) was used and this reaction was accompanied by a partial propargyl re-grouping and the formation of a mixture of approximately 80% (IV) and 20% (V). The chloride (VI), however, which was obtained from this mixture by the re-

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The Article is Open for Discussion. On the Question SOV/79-29-6-72/72  
of the Character of Chloroarylation of Vinyl Acetylene

action of  $\text{SOCl}_2$ , contains a very small quantity of allene chloride. The same happens when phenyl-vinyl acetylene is obtained at the dehydro-halogenation of chloride (VI). The data obtained are shown in the table and in the diagram. There are 1 figure and 6 references, 4 of which are Soviet.

ASSOCIATION: Leningradskiy tekhnologicheskii institut imeni Lensovet  
(Leningrad Technological Institute imeni Lensovet)

SUBMITTED: July 16, 1958

Card 3/3

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2209, 1153

S/079/60/030/008/011/012/XX  
B001/B066

AUTHORS: Kheruze, Yu. I., and Petrov, A. A.

TITLE: Investigations in the Field of Conjugate Systems.  
CXXIII. Chloro-arylation of Vinyl Ethyl Acetylene 7

PERIODICAL: Zhurnal obshchey khimii, 1960, Vol. 30, No. 8, pp.2523-2533

TEXT: Chloro-arylation of vinyl alkyl acetylenes has so far not been investigated. Their reaction with diazonium salts was, however, of some importance since the polarization of the conjugate system occurring under the influence of radicals differs from that in non-substituted vinyl acetylenes. In the present paper, chloro-arylation of vinyl ethyl acetylenes reacting with phenyl, p-tolyl, p-chloro-phenyl, and p-anisyl diazonium chlorides was studied. In all cases compounds of the formula  $\text{Ar-C}_6\text{H}_8\text{Cl}$  resulted. The formation of six different products, (I)-(VI), was to be expected. The proper formulas for the products of the reaction of vinyl ethyl acetylene with phenyl diazonium chloride were selected on the

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857.4

Investigations in the Field of Conjugate  
Systems. CXXIII. Chloro-arylation of  
Vinyl Ethyl Acetylene

S/079/60/030/008/011/012/XX  
B001/B066

basis of their catalytic hydrogenation, ozonization, and their infrared spectra. On hydrogenation of the phenyl-chloro-hexines and hexadienes (I) - (VI), three phenyl hexanes were expected to be formed: 1-phenyl-hexane from (I) and (II), 2-phenyl hexane from (VI), and 3-phenyl hexane from (III), (IV), and (V). Boiling point and infrared spectrum of that phenyl hexane which was obtained by hydrogenation of the chloro-phenylation products, were in agreement with the data for 1-phenyl hexane. It was found that chloro-phenylation of vinyl ethyl acetylene gives only rise to compounds of normal structure, which excludes formulas (III)-(VI). The infrared spectrum of the chloro-phenylation product of vinyl acetylene shows that the reaction product is 2-chloro-1-phenyl hexine-3 (I) with a small impurity of allene isomer (II). Ozonization of the chloro-phenylation products gave propionic acid and, apparently,  $\alpha$ -chloro-hydrocinnamic acid, i.e., products of formula (I). Ketones which might have resulted from the isomers (III), (IV), and (V), could not be detected. Also the absence of phenyl acetic acid indicates that the isomer (II) occurs only in a small quantity. The above chloro-arylation of vinyl

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5-3600

S/079/61/031/002/005/019  
B118/B208

AUTHORS: Kheruze, Yu. I. and Petrov, A. A.

TITLE: Studies in the field of conjugated systems. CXXX. Halogen arylation of vinyl acetylene with phenyl-, p-tolyl-, m- and p-chloro-phenyl-, and p-anisyl diazonium salts

PERIODICAL: Zhurnal obshchey khimii, v. 31, no. 2, 1961, 428-432

TEXT: The chloro-arylation of vinyl acetylene with diazonium salts described by A. V. Dombrovskiy in Ref. 1, which gives 1-aryl-2-chloro-butines-3, takes place at least in two directions yielding chloro-phenyl butine (I), and, apparently, 1-chloro-4-phenyl butadiene-1, 2 (II) (Ref. 2):

$C_6H_5 - CH_2 - CHCl - C \equiv CH$  (I),  $C_6H_5 - CH_2 - CH = C - CHCl$  (II).

This reaction was studied to confirm the structure of allene chloride (II) by ozonization and oxidation (with potassium permanganate) of the chloride mixtures (I) and (II). Instead of the expected phenyl acetic acid, however, benzoic acid was obtained in both cases which may result from an intenser

Card 1/3

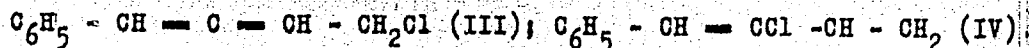
89512

S/079/61/031/002/005/019

B118/B208

Studies in the field ...

oxidation of two chlorides, or of other isomeric chlorides which are present in low quantities in the chloro-phenylation products of vinyl acetylene (e.g., (III) and (IV)):



The first assumption is more likely, as neither chloro acetic acid nor oxalic acid were separated in the ozonization and oxidation, and the chlorine was found to be of high stability. It had further to be clarified whether chloro and bromo arylation of vinyl acetylene with diazonium salts proceed in the same direction. For this purpose, vinyl acetylene was allowed to react with phenyl diazonium bromide. The infrared spectrum of the resultant bromide mixture disclosed plainly that this mixture does not essentially differ from mixtures (I) and (II) usually obtained by chloro-arylation. The allene adduct is thus formed in addition to the acetylene adduct in the bromo-arylation of vinyl acetylene. In order to establish the relationship between the distribution of electron density in the benzene ring of aryl diazonium, and the direction of halogen arylation, vinyl acetylene was allowed to react with phenyl-, p-tolyl-, and p-chloro-phenyl-, and p-anisyl-

Card 2/3

KHERUZE, Yu.I.; PETROV, A.A.

Conjugated systems. Part 132: Chloroarylation of close homologues of vinylacetylene (1-penten-3-yne, 3-penten-1-yne, and 2-methyl-1-buten-3-yne). Zhur. ob. khim. 31 no.3:772-780 Mr '61.

(MIRA 14:3)

1. Leningradskiy tekhnologicheskij institut imeni Lensovet.  
(Pentenylene) (Butenylene)

KHERUZE, Yu.I.; PETROV, A.A.

Conjugated systems. Part 142: Addition of triphenylmethyl radicals to vinylacetylene and its homologs. Zhur.ob.khim. 31 no.8:2559-2563 Ag '61. (MIRA 14:8)

1. Leningradskiy tekhnologicheskii institut imeni Lensoвета.  
(Butenyne) (Radicals (Chemistry))

27260

S/020/61/139/005/03/021  
B103/B217

5.3700

AUTHORS: Petrov, A. A., Stadnichuk, M. D., and Kheruze, Yu. I.  
TITLE: Addition of triphenyl methyl radicals to enyne hydrocarbons and silicon hydrocarbons  
PERIODICAL: Akademiya nauk SSSR. Doklady, v. 139, no. 5, 1961, 1124-1127

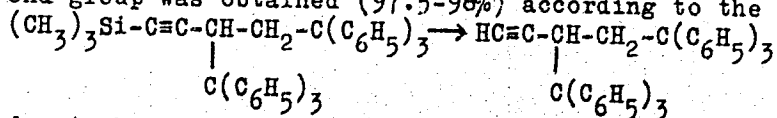
TEXT: The authors found that isopropenyl acetylene is not the only compound that adds triphenyl-methyl radicals in 1,4-position according to A. F. Thompson, Jr., D. M. Surgenor, (Ref. 1: J. Am. Chem. Soc., 65, 486 (1943)). When triphenyl chloro methane and metallic mercury reacted with vinyl methyl acetylene (I), they obtained a crystalline adduct  $C_{43}H_{36}$ . The latter had, in its infrared spectrum, a rather intensive band of the allene group at about  $1960\text{ cm}^{-1}$  (Fig. 1,1), whereas the bands characteristic of acetylene and vinyl groups were lacking. Therefore, the structure  $(C_6H_5)_3C-\underset{\text{CH}_3}{C}=C=CH-CH_2-C(C_6H_5)_3$  was ascribed to this adduct. A 1,4-adduct is formed analogously on addition of triphenyl methyl radicals to vinyl-tert-

Card 1/7

Addition of triphenyl methyl ...

27260  
S/020/61/139/005/013/021  
B103/B217

butyl acetylene (II) which, however, could not be separated in pure state. Its infrared spectrum is given in Fig. 1,2. Triphenyl methyl radicals are added to silicon-containing enynes in different order according to structure, in contrast to vinyl acetylene hydrocarbons. Thus, vinyl trimethyl silyl acetylene (1-trimethyl silyl butene-3-ene-1) (III) mainly adds to the double bond. An intensive band  $2168\text{ cm}^{-1}$  of the triple bond exists in the infrared spectrum of the adduct, and a weak band in the range of  $1945\text{ cm}^{-1}$  where the absorption of allene compounds usually takes place (Fig. 1,3). The adduct structure was also chemically confirmed. A hydrocarbon with an acetylene end group was obtained (97.5-98%) according to the scheme



due to hydrolytic cleavage of this substance. The structure of the hydrocarbon was proved by means of argentometric titration and by the infrared spectrum; the intensive frequency  $3315\text{ cm}^{-1}$  of the acetylene end group (Fig. 1,5) was detected. This hydrocarbon is, according to its structure, an isomer of the 1,4-adduct of the triphenyl methyl radicals to vinyl acetylene, and differs from this isomer only by a higher melting point.

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27260

S/020/61/139/005/013/021  
B103/B217

Addition of triphenyl methyl ...

Isopropenyl trimethyl silyl acetylene (1-trimethyl silyl-3-methyl butene-3-ine-1) (IV) adds triphenyl methyl radicals in 1,4-position, i.e., in the same direction as enyne hydrocarbons. Triphenyl methane is formed in this case as by-product (17% for IV, 6% for V). An intensive band ( $1930\text{ cm}^{-1}$ ) of the allene group exists in the infrared spectrum of the adduct, whereas the bands of the acetylene bond is lacking (Fig. 1,4). An allene hydrocarbon described in the literature (Ref. 1) is formed by hydrolytic cleavage. The structure of the adduct of triphenyl methyl radicals to propenyl trimethyl silyl acetylene (1-trimethyl silyl pentene-3-ine-1) (V) has hitherto not been reliably determined. It is assumed to have a 1,3-diene structure, since neither an allene nor an acetylene group exists in its infrared spectrum. The authors explain the difference in the order of addition of triphenyl methyl radicals to hydrocarbon (II) and silicon hydrocarbon (III) of analogous structure by increasing steric hindrances for the acetylene bond in transition from quaternary hydrocarbon to quaternary silicon. Steric hindrances also occur at the double bond of silicon hydrocarbons IV and V. Therefore, the 1,4-addition is more favorable. Addition is now retarded, which is proved by a lower yield of adducts and by formation of triphenyl methane. The authors' experiments were conducted with a mixture of tri-

X

Card 3/7



27260

S/020/61/139/005/013/021  
B103/B217

Addition of triphenyl methyl ...

phenyl chloro methane (melting point 108-112°C) with an excess of enyne compound, benzene, and metallic mercury (10-fold excess). The mixture was shaken for several days in a hermetically sealed glass in protective gas atmosphere. Then, the excess of enyne and solvent was distilled off, the residue extracted with ether. The ether was distilled off, the residual oil, when standing, crystallized more or less quickly. The adducts were recrystallized from petroleum ether or from acetone. All adducts (constants and data see Table 1) are weakly soluble in ether, petroleum ether, acetone,  $CCl_4$ , and practically insoluble in alcohol. The adduct of silicon hydro-

carbons (V) is almost insoluble. Hydrolysis of the adducts of (III) and (IV) was realized by boiling with alcoholic KOH solution (25-fold excess) for 35 hr. I. A. Maretina assisted in synthesis. There are 1 figure, 1 table, and 4 references: 3 Soviet-bloc and 1 non-Soviet-bloc.

ASSOCIATION: Leningradskiy tekhnologicheskii institut im. Lensovet  
(Leningrad Technological Institute imeni Lensovet)

Card 4/7

L 11060-63

EMP(j)/EFF(c)/EST(m)/BDS-Pc-L/Pr-L--RM/WM/JFW

ACCESSION NR: AP3000482

S/0153/63/005/001/0170/0171

65

AUTHOR: Kheruze, Yu. I.; Petrov, A. A.

TITLE: Addition of triphenylmethyl radicals to divinylacetylene and its homologs

SOURCE: Izv. VUZ: Khimiya i khim. tekhnologiya, v. 6, no. 1, 1963, 170-171.

TOPIC TAGS: triphenylmethyl radicals, divinylacetylene, vinylpropenylacetylene, vinylisopropenylacetylene, addition reactions

ABSTRACT: Crystalline adducts were formed between the triphenylmethyl radical and divinylacetylene (1), vinylpropenylacetylene (2), and vinylisopropenylacetylene (3) in benzene solution. Addition occurred chiefly in the 1,4-positions to form 7, 7, 7-triphenyl-3-triphenyl-methyl-heptatriene, 8, 8, 8-triphenyl-3-triphenylmethyl-heptatriene-1,3,4. Adducts were characterized by their IR spectra. Weak absorption occurs. Adducts were recrystallized from propylacetate and formed molecular compounds with acetone. Orig. art. has: 1 table.

ASSOCIATION: Kafedra organicheskoy khimii, Leningradskiy tekhnologicheskii institut im. L'ansoveta (Department of Organic Chemistry, Leningrad Technological Institute)

Card 1/1

KHERUZE, Yu.I.; PETROV, A.A.

Conjugated systems. Part 170: Chloroarylation of divinylacetylene  
and its homologs. Zhur.ob.khim. 33 no.4:1111-1119 Ap '63.  
(MIRA 16:5)

1. Leningradskiy tekhnologicheskii institut imeni Lensoвета.  
(Hexadienyne) (Arylation) (Chlorination)

SUB CODE: EE, GO, IE/ SUBM DATE: 30Jan61/ ATD PRESS: 4189

APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000722010002-7

80  
Card 1/1

ANYERYAN, K. M.

21692

ANYERYAN, K.M. k teorii riykikh oydovek, narruzhennykh davleniem  
zhidkikh idisypuvikh ted. v sy: Issledovaniya po teorii sooruzheniy  
vyp. 4. M-L., 1949, c. 1951-58 - Yiydiorr: 9 nazv.

SO: Letopis' Zhurnal'nykh Statey, No. 29, Moskva, 1949

KHERZE, J.

POLAND/Cultivated Plants - Fodder

M-6

Abs Jour : Ref Zhur - Biol., No 1, 1958, No 1621

Author : J. Kherze

Inst : Not Given

Title : Cover Crop for Mixtures of Clover with Grain Grasses

Orig Pub : Plon, 1957, No 2, 7

Abstract : Tests, conducted during 1952-1955 at the experimental station in Hilitza (Poland), have shown that the best cover crop for a grass mixture (containing 16 kg of seeds of red clover, 4 kg timothy, 4 kg of tall rye grass, and 2 kg of collected orchard grass) from winter cultures was rye (the yield of grass green stuff for 2 years use is 655.3 centners per hectare); from summer cultures, it was barley, oats, wheat and rap which were almost equivalent. Tests, using different sowing methods times for grass mixtures, have shown that the most favorable sowing time was one after the harvest of early potatoes. Good results were also obtained from spring sowing of the grass mixture as an additional crop with barley or a gramineous-leguminous mixture of oats (25%), lupine (40%), pelyushki (15%), vetch (15%).

Card : 1/1

KHES, Z.

Air pollution in industry; formaldehyde in air. Pracovni lek. 4 no.4:  
283-290 Aug 1952. (OIML 23:4)

1. Of the KHES--Department of Industrial Hygiene in Gottwaldov.

KHESED, Ye. A.

124-57-2-2559

Translation from: Referativnyy zhurnal, Mekhanika, 1957, Nr 2, p 146 (USSR)

AUTHOR: Khesed, Ye. A.

TITLE: A Strain-gage Pickup for the Measurement of Small Displacements  
(Tenzometricheskiy datchik dlya izmereniya malykh peremeshcheniy)

PERIODICAL: V sb.: Novyye sredstva izmereniya v mashinostroyenii.  
Moscow, 1954, pp 50-53

ABSTRACT: Existing measuring devices for small displacements, which consist of four strain gages used as the sides of a bridge, are afflicted with the drawback that they require means for the compensation of the temperature errors which arise from temperature changes in the ambient medium and which are, in the main, determined by the temperature coefficient of the resistance of the strain-gage material and from the thermal deformations of the gage element. The author proposes a bridge circuit comprising four active and four compensatory strain gages to serve as a pickup for small displacements (strains). This circuit, in the author's opinion, exhibits greater sensitivity and compensates fully for temperature errors. K. S. Karapetyan

Card 1/1

1. Strain gages--Performance 2. Strain gages--Temperature factors

16.3500

34580

S/044/62/000/001/026/061  
C111/C444

AUTHOR: Khesenov, K. G.

TITLE: On the existence and the uniqueness of the solution of the mixed problem for a differential equation of the hyperbolic type with a non-linear part

PERIODICAL: Referativnyy zhurnal, Matematika, no. 1, 1962, 44, abstract 1B219. ("Uch zap. Azerb. un-t. Ser. fiz.-matem. i khim. n.," 1960, no. 1, 15-25)

TEXT: Considered is the following mixed problem: In the domain  $G$  determine the solutions of

$$\frac{\partial^2 u}{\partial t^2} = \frac{\partial^2 u}{\partial x^2} + \frac{\partial^2 u}{\partial y^2} + f(t, x, y, u) \quad (1)$$

which satisfy the initial conditions

$$u|_{t=0} = \varphi(x, y), \quad \frac{\partial u}{\partial t}|_{t=0} = \psi(x, y) \quad (2)$$

and the boundary condition

$$u|_S = 0 \quad (3)$$

Card 1/2



On the existence and the uniqueness ... S/044/62/000/001/026/061  
C111/C444

Under certain suppositions on the given functions one proves the  
existence of the solution of (1), (2), (3) by the Fourier method.

[Abstracter's note: Complete translation.]

4

Card 2/2

SOV/137-59-5-10349

Translation from: Referativnyy zhurnal, Metallurgiya, 1959, Nr 5, p 129 (USSR)

AUTHOR: Khesin, A.M.

TITLE: Modern Technological Processes in Welding and Building-Up of Metals at the Enterprise of the Lugansk Sovnarkhoz

PERIODICAL: Prom.-ekon. byul. Sovnarkhoz Luganskogo ekon. adm. r-na, 1958, Nr 3, pp 20 - 23

ABSTRACT: At the Lugansk Plant imeni Oktyabr'skaya Revolyutsiya up to 45% of the welding operations on locomotives are carried out by automatic or semiautomatic welding and the resistance welding processes. At the Lugansk Equipment Plant imeni Parkhomenko electric resistance welding is widely used in the manufacture of screening machines, elevators, and other machines, raising labor efficiency by a factor of 8. At the Locomotive Plant, welding-on of pins by special pistols was brought into use. One-side welding under flux on a flux-copper backing was developed for 4 mm thick sheet metal with two-side formation of the seam. At the Alchevsk Metallurgical Plant imeni Voroshilov, the use of automatic facing of worn cut.

Card 1/2

SOV/137-59-5-10349

Modern Technological Processes in Welding and Building-Up of Metals at the Enterprise of the Lugansk Sovnarkhoz

parts and the production of surface layers of higher wear resistance reduced the consumption of new rollers by a factor of 17. At the Bokovsk Plant the facing operations are carried out by the vibro resistance method for the repair of ore-industry equipment. The hardness of parts increases by a factor of 1.5. Automatic welding of tool steel working surfaces onto conventional steel bases is widely used at the plants. At the Plant imeni Parkhomenko the introduction of electric welding of brass instead of gas welding saved 300,000 rubles yearly.

A.F.

Card 2/2

YAMPOL'SKIY, M.N.; KHESIN, A.M.

Applying the principle of vibration in hammer crushers.  
Koks i khim. no.7:14-17 J1 '61. (MIRA 14:9)

1. Ukrainskiy proyektno-konstruktorskiy i nauchno-issledovatel'skiy institut po obogashcheniyu i briktirovaniyu ugley.  
(Coal preparation plants—Equipment and supplies)  
(Crushing machinery)

KHESIN, A.M., inzh.

Graphic method of calculating the distribution of ash and sulfur content in coals according to size classification. Ugol' 40 no.12:63-67 n' 165. (MIRA 18:12)

1. Ukrainskiy proyektno-konstruktorskiy i nauchno-issledovatel'skiy institut po obogashcheniyu i briketirovaniyu ugley.

KHESIN, A.Ya., inzh.

Full-flowing centrifuge for the SMD series of diesel engines. Trakt.  
i sel'khoz mash. no.4:15-17 Ap '65. (MIRA 18:5)

1. Gosudarstvennoye spetsial'noye konstruktorskoye byuro po  
dvigatelyam.

CHEPIGIN, G.V., kand.tekhn.nauk; GUL', N.S., inzh.; CHIZHOV, A.P., inzh.  
KHESIN, A.Ya.

Results of the operational tests of a full-flow RMTs device on the  
SMD diesel engine. Trakt. i sel'khoz mash. 32 no.6:12-14, Je '62.  
(MIRA 15:6)

1. Dnepropetrovskiy sel'skokhozyaystvennyy institut (for Chepigin,  
Gul', Chizhov). 2. Gosudarstvennoye spetsial'noye konstruktorskoye  
byuro po dvigatelyam (for Khesin).  
(Tractors--Oil filters)

KHESIN, A.Ya.

Conference at the All-Union Scientific Research Institute of Agricultural Machinery on the problems of improving the quality, reliability, and durability of agricultural machinery. Trakt. i sel'khoz mash. no. 7:3 of cover J1 '65. (MIRA 13:7)



ALESKEROVA, Z.T.; KRITSUK, G.S., LI, P.F., LITVINENKO, I.V.; OSADCHAY, D.V.;  
OSTROUMOVA, A.S.; OSIKO, T.I.; RAVDONIKAS, O.V.; ROSTOVTSSEV, N.N.;  
SIMONENKO, T.N.; TOLSTIKHINA, M.A.; KHEB, M. B.E.; BABINTSEV, red.  
izd-va; KRYNOCHKINA, K.V., tekhn. red.

[Geological structure and oil-producing prospects of the West  
Siberian Plain] Geologicheskoe stroenie i perspektivy nefte-  
gazonosnosti Zapadno-Sibirskoi nizmennosti. Pod obshchai red.  
N.N. Rostovtseva. Moskva, Gos. nauchno-tekhn. izd-vo lit-ry po geol.  
i okhrane nedr, 1958. 390 p.

(MIRA 11:12)

1. Leningrad. Vsesoyuznyy geologicheskii institut.  
(West Siberian Plain--Petroleum geology)

KHESIN, B.E.

Using the ESK-1 electronic switch compensator in electric  
prospecting in Azerbaijan. Geofiz.prib. no.8:107-109 '61.  
(MIRA 15:7)

(Electric prospecting)

MUSTAFABEYLI, M.A.; KHESIN, B.E.

Geological interpretation of certain magnetic anomalies in the  
Lesser Caucasus. Sov. geol. 7 no.11:108-113 N '64. (MIRA 13:2)

1. Azerbaydzhanskoye geologicheskoye upravleniye.

ANDREYEV, L.I.; MUSTAFABEYLI, M.A.; POPOV, A.P.; KHESIN, B.E.;  
SHAKHNAZARYAN, A.L.

New data on the structure of pebble formations in the Samur-  
Kusarchay interfluvium. Sov.geol. 6 no.12:123-129 D '63.

(MIRA 16:12)

1. Azerbaydzhanskoye geologicheskoye upravleniye.

KHESIN, B.E.

Use of an emission survey in Azerbaijan for detailed geological  
mapping. Sbor. st. MGION no.1:27-33 '62. (MIR/ 16:3)  
(Azerbaijan--Prospecting--Geophysical methods)

KHESIN, B. E.

Using the results of geophysical surveying for geological mapping on 1:10,000 and 1:5,000 scale. Uch. zap. AGU. Geol.-geog. ser. no.1:37-41 '62. (MIRA 16:1)

(Geology—Maps)

MUSTAFABEYLI, M.A.; KHESIN, B.E.; MURADKHANOV, S.A.; ALEKSEYEV, V.V.

Prospecting for complex metal deposits on the southern slope of  
the Greater Caucasus using geophysical methods. Razved. i okh.  
nedr 30 no.9:30-38 S '64. (MIRA 17:22)

1. Upravleniye geologii i okhrany nedr AzerSSR.

KHESIN, MANUIL BORISOVICH

KHESIN, Manuil Borisovich; SAFONOV, V.A., redaktor; AL'TMAN, T.B., redaktor  
izdatel'stva

[Problems in the mechanization of heavy and labor-consuming operations  
in the repair of oil refinery equipment] Voprosy mekhanizatsii tiazhe-  
lykh i trudnoemkikh protsessov remonta neftepererabatyvayushchikh  
ustanovok. Baku, Azerbaidzhanskoe gos.izd-vo nef. i nauchno-tekhn.  
lit-ry, 1956. 230 p. (MLR 10:9)  
(Petroleum--Refining)



E-B.  
KHESIN, E.B.

Improvement of maintenance planning is a powerful factor in increasing the productivity of refineries. Neft.khoz. 34 no.5:45-52  
My '56.

(Petroleum--Refining)

(MLRA 9:8)

KHESIN, F.B.

Maintenance organization of main petroleum refining installations.  
Neftekhim. 34 no. 6:48-52 Ja '56. (MIRA 9:9)  
(Petroleum--Refining)

*KHESIN, E.B.*  
KHESIN, E.B.

Improve the organizational structure of petroleum refineries. Neftia-  
nik 2 no.12:17-18 D '57. (MIRA 11:2)

1. Sotrudnik Tsentral'nogo nauchno-issledovatel'skogo instituta  
tekhnicheskoy informatsii i ekonomiki neftyanoy promyshlennosti  
(TSNITNeft').

(Petroleum industry)

KHESIN, Emmanuil Borisovich; YEFREMOVA, T.D., ved. red.; SOLOMONIDIN,  
S.M., tekhn. red.

[Organization of repairs in petroleum refineries] Organizatsiya  
remontov nefte-savodov. Moskva, Gos. nauchno-tekhn. izd-vo neft.  
i gorno-toplivnoi lit-ry, 1958. 95 p. (MIRA 11:11)  
(Petroleum industry--Equipment and supplies--Maintenance and repair)

AUTHOR: Khesin, E. B., Staff Member of TsNIIENEft' 92-58-5-24/30

TITLE: Designs of Processing Units Should be Based on Operating Experience  
(Proyektirovat' tekhnologicheskiye ustanovki na osnove opyta  
ekspluatatsii)

PERIODICAL: Neftyanik, 1958, Nr 5, pp 25-27 (USSR)

ABSTRACT: The author states that numerous errors are made in designing refinery processing units and equipment because the conditions under which these units are run and the conditions under which they are overhauled are not taken into serious consideration. Due to the lack of a critical approach, the unsatisfactory designs of existing equipment are taken as a basis for designing new equipment. For example, refinery furnace tubes are designed and built with returnbends which are undesirable for a number of reasons (risk of leakage and fire, higher construction cost, etc.). Therefore, it would be advisable to design furnace tubing of atmospheric-vacuum pipe stills adopting integrally constructed coils without any returnbends. Moreover, different types of fractionating

Card 1/3

Designs of Processing Units (Cont.)

92-53-5-24/30

tower trays are offered to refiners. Among these types, refiners prefer to use trays with slotted bubble caps and not with tumble-shaped caps. Nevertheless, designers of fractionating tower equipment continue to produce and offer the tumble-shaped caps, although it had been proved that the overhaul of a vacuum tower is much more complicated and protracted if the latter has trays with tumble-shaped caps. Lifting and moving machinery is provided by designers in order to mechanize overhauling operations. But this machinery often blocks up the area around the equipment in spite of the fact that this practice is definitely objectionable. Experience has proved, for instance, that automatic hoists of adequate capacity are very useful for carrying out a complicated overhauling operation. It has to be noted, however, that the operation of such hoists requires a free area around the equipment to be overhauled. It is also advisable to create conditions permitting the overhaul of certain apparatus without interrupting the operation of the whole unit. Designers do not pay sufficient attention to the problem of providing spare equipment which could substitute for operating equipment when the latter is switched off for an overhaul. The latest scientific developments and in particular the chemical cleaning of

Card 2/3

Designs of Processing Units (Cont.)

92-51-5-24/30

refinery equipment should also be studied by designers before they prepare the layout of a refinery. The author gives a number of examples which illustrate the fact that designers often overlook important factors affecting refinery operations. The principles on which the layout of a refinery is based should be carefully studied and revised if necessary. The editorial office of Neftyanik invites the readers to express their opinions on the views expressed in this article.

ASSOCIATION: TsNIITEneft'

1. Refinery equipment--Design

Card 3/3

LEYBO, Anatoliy Nikanorovich; KHESIN, Emmanuil Borisovich; CHERNYAK, Yakov Solomonovich; SEVAST'YANOV, M.I.; DOVZHUK, G.T.; SOLGANIK, G.Ya., ved. red.; VORONOVA, V.V., tekhn. red.

[Handbook for petroleum refinery mechanics] Spravochnik mekhanika neftepererabatyvalushchego zavoda. Moskva, Gostoptekhzdat, 1963. 801 p. (MIRA 16:7)  
(Petroleum--Refining)



KHESIN, G., kand. tekhn. nauk; SAVOST'YANOV, V., kand. tekhn. nauk;  
TIMOFEYEV, S., inzh.

Study by the photoelastic method of the static performance of  
pile grating under a panel. Zhil. stroi. no. 11:9-13 '64  
(MIRA 18:2)

PIGOROVSKIY, N.I., doktor tekhn.nauk, prof.; KHESIN, G.I., kand.tekhr.  
nauk

Centrifugal field modeling of gravitational forces in heavy  
structures with consideration given to peculiarities of foundation  
deformation. Gidr.stroi. 31 no.3:26-28 Mr '61.

(Hydraulic models) (Foundations)

(Mira 14:4)

*Khesin, G.L.*

98-1-7/20

**AUTHORS:** Gubin, F.F., Prigorovskiy, N.I., Doctors of Technical Sciences, Professors and Khesin, G.L., Engineer

**TITLE:** Investigations of a Built-in Hydroelectric Power Plant With a High Massive Dam (Issledovaniya vstroyennogo varianta gidroelektrostantsii s vysokoy massivnoy plotinoy)

**PERIODICAL:** Gidrotekhnicheskoye Stroitel'stvo, 1958,<sup>27</sup> # 1, pp 29-36 (USSR)

**ABSTRACT:** Tensions occurring within the structure of built-in type hydro-electric power plants during the periods of construction and operation are influenced by several factors, of which the most essential are the pressure of the water from the head water and the weight of the installation itself. The strains which might occur at various transverse profiles in the design of the Bratsk Hydroelectric Power Plant were examined in detail for the preparation of the technical project. As a result of these studies a profile was developed for future projects which showed a more favorable distribution of stress than previous designs. The article deals with the methods of research

Card 1/5

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## Investigations of a Built-in Hydroelectric Power Plant With a High Massive Dam

and the results obtained. Investigations were facilitated and analyses were simplified by making pressure measurements of weight and hydrostatic pressure separately. The authors present several formulas of the effects produced by pressure from the outside and by the weight of the installation. Experiments were conducted on flexible models which were subjected to strains up to the limits of elasticity. To insure reliability of results, the following two types of three-dimensional and flat models were used: 1) Tensometric models consisting of materials with a low modulus of longitudinal elasticity (organic glass, neoleucorite). 2) Optical models of transparent, optically active materials.

The deformations were measured by means of stress transducers with 10, 5 and 3 mm basis, glued onto the surface of the model or placed inside the model. The errors at measuring the deformation of the attached stress transducer by means of the electronic device "ИСП-2 ИМАШ" do not exceed 2 - 4%. The authors present several formulas by which the tension inside the models given by the stress transducer can

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be computed. By using the data obtained from the inside loads, the hydrostatic pressure at different water levels of the reservoir can be established. The testing of tensometric models under realistic load conditions was carried out by a centrifugal machine of 2.6 m in diameter and by means of applying several concentrated loads to the gravity centers of the volumes of the model. New methods were made possible by using new "optically" active materials: styrene alkyd resin (material МИХМ-ИМАШ ) and epoxymal (with resin ЭД-6 or Э-40 ). Special research, conducted with the Candidate of Technical Sciences N.A. Shchegolevskiy, showed the feasibility of producing optically active materials based on epoxy-type resin and "inoculated" polymers with a broad range of elasticity moduli. The separation of main stresses within the models which are subjected to the combined pressure of hydrostatic loads and their own weight is accomplished by numerical integration over the increments of tangential stresses. Besides, a less complicated method for separating the main stresses in flat models was developed with electric models using

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current-conducting paper. Isolines obtained on electric models are shown in figure 1. Research conducted on flat optical models of stresses subjected to combined action of their own weight and hydrostatic load were carried out on models made from epoxymal, which permit to carry out the "freezing" of the model and to subject it subsequently to hydrostatic load at indoor temperatures. Volumetric tensions existing in different sections of the model were determined by means of cuts taken from "frozen" models, (figure 2). Examinations of the cuts were conducted by means of a polarization microscope "MII-3", and by applying a double-beamed light in the polarization device. The conducted experiments made the evaluation of the tensions prevailing in this type hydroelectric power plant at the combined stress from its own weight and hydrostatic pressure, during periods of operation, possible, as well as at different stages of construction. They further permitted evaluation of the effect of different structural changes on the tension pre-

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KHESIN, G. L.

SOV/124-57-3-3669

Translation from: Referativnyy zhurnal. Mekhanika, 1957, Nr 3, p 147 (USSR)

AUTHOR: Prigorovskiy, N. I., Khesin, G. L.

TITLE: The Investigation of the Stress Distribution in the Indoor Powerhouse Structure of a High-pressure Hydroelectric Plant (Issledovaniye napryazheniy v bloke vysokonapornoy GES vstroyennogo tipa)

PERIODICAL: Tr. Mosk. inzh-stroit. in-ta, 1956, Nr 16, pp 123-140

ABSTRACT: The paper analyzes the advantages of the method of model tests performed with models made of a material having a low modulus of elasticity as compared to the photoelastic method. The authors submit suggestions relative to a material (organic glass), to a procedure of tensometry (electric strain gages, stresscoat, etc.), and on similarity criteria. Procedural details and the results of a test investigation of a dam model are adduced.

I. K. Snitko

Card 1/1

✓  
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stations of a built-in tonon." Mos, 1958. 24 pp (Min of Higher Educa-  
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SHCHEGOLEVSKAYA, N.A., kand. tekhn. nauk; SOKOLOV, S.I., doktor tekhn. nauk, prof.; KHESIN, G.L., inzh.; PRIGOROVSKIY, N.I., doktor tekhn. nauk, prof.

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  3. Institut mashinovedeniya AN SSSR (for Prigorovskiy).
- (Resins, Synthetic) (Strains and stresses)

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KHESIN, G.L., kand.tekhn.nauk

Development and experimental basis of certain calculational methods  
for determining stresses in large dams with longitudinal cavities.

Sbor. trud. MISI no.35:98-110 '61.

(MIRA 14:9)

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(Dams--Models) (Hydroelectric power stations)

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N.A., kand.tekhn.nauk; LESNICHIIY, Yu.N., inzh.; SOKOLOV, S.I.,  
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